

### Joint Event

### 3rd International Conference on

## Spine and Spine Disorders

&

# International Conference on Addiction Research and Therapy

November 26-27, 2018 | Dubai, UAE

### Instrumentation through Interrupted Trajectory in Complex Cervical Spine cases

Walid Attia and Khalid Al Musrea National Neuroscience Institute, Saudi Arabia

**Purpose:** Surgical challenges in complex spine cases include yet not limited and exposure, decompression near vital or neural structures, decompression at a blind angle, and difficult trajectories for instrumentation. Displaced bone pieces across the desired trajectory is a major challenge when it is the only available trajectory to use. The type and extent of image guided-surgery for spine disorders still lacks evidence-based medicine proof. It is up to the health care providers sound judgement and expertise to do what is needed for the patient. The use of intraoperative CT-quality O-arm, and neuronavigational are still tested as aiding tools in such operative modalities.

**Methods:** We selected 2 Cervical Spine cases that were operated upon during the years 2009-2016 in our institute by the first author to be included in this study. Both represent complex traumatic spinal fractures. Both a major technical challenge in the trajectory jeopardizing the safety of instrumentation. In both cases the Medtronic O-arm and Medtronic Stealth Station were used as intraoperative mapping tools.

**Results:** Intraoperative navigation tools were so useful in securing neural and vascular tissue safety, surpassing the trajectory difficulty, together with tough bony purchases of the hardware from the first and only trial of application when needed. Intraoperative CT taken by the o-arm was a useful confirmatory intraoperative test of proper hardware placement.

**Conclusion:** The intraoperative use of the O-arm and stealth station is very useful in this modality of Spine Surgeries.

#### **Speaker Biography**

Walid Attia was born on November 8, 1969, and right now he is consultant Neurosurgery/Spine surgery Director and Spine Fellowship Program Departments of Neurosurgery/Spine Surgery National Neuroscience Institute King Fahad Medical City. He is a recipient of the outstanding graduation grant (top 30 graduates) in the Republic High School Diploma examination, the Egyptian Ministry of Education. 1986 recipient of the outstanding graduation honour at Tanta University Faculty of Medicine (fourth on the class of 320 graduates).

e: attwali@hotmail.com

